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Exhibit R-2, RDT&E Budget Item Justification						Date: February 1999				
APPROPRIATION/BUDGET ACTIVITY: RDT&E,N/ 05						R-1 ITEM NOMENCLATURE Enhanced Modular Signal Processor/ 0604507N				

COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total P.E. Cost	1.5	1.5	1.0	1.0	1.2	1.2	1.4	1.4	CONT.	CONT.
Enhanced Modular Signal Processor V1440	1.5	1.5	1.0	1.0	1.2	1.2	1.4	1.4	CONT.	CONT.
Quantity of RDT&E Articles & cost										

A. Mission Description and Budget Item Justification: This program improves Navy Signal Processing Hardware and Software.

PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 1998 ACCOMPLISHMENTS:

- (\$0.5) Completed Technical Direction Agent (TDA) support for redesign of the Enhanced Modular Signal Processor (EMSP) operating system to allow it to be hosted on Commercial-Off-The-Shelf (COTS) hardware.
- (\$0.2) Developed and tested prototype COTS Airborne Enclosure.
- (\$0.5) Continued to work with Industry to develop Vector Signal Image Processing (VSIP) and Message Passing Interface/Real Time (MPIRT) standards compatible with Common Operating Environment (COE)/ Tactical Advanced Signal Processor (TASP).
- (\$0.3) Developed a Common Signal Processor specification for multiple users.

2. FY 1999 PLAN:

- (\$0.785) Continue joint program initiatives to develop and implement a common COTS signal processing solution into AN/SQQ-89, SH-60 Airborne Low Frequency Sonar (ALFS), and P-3 Special Projects systems platforms.
- (\$0.725) Continue to work with Industry to develop Vector Signal Imaging Processing (VSIP) and Message Passing Interface/Real Time (MPIRT) standards compatible with Common Operating Environment (COE)/Tactical Advanced Signal Processor (TASP).
- (\$0.025) Portion of extramural program is reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

3. FY 2000 PLAN:

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- (\$0.5) Continue joint program initiatives to develop and implement a Common COTS signal processing solution for AN/SQQ-89, SH-60 Airborne Low Frequency Sonar (ALFS), and P-3 Special Projects systems platforms.
- (\$0.5) Continue to work with Industry to develop and enhance capabilities/functions for Vector Signal Imaging Processing (VSIP) and Message Passing Interface/Real Time (MPIRT) standards compatible with Common Operating Environment (COE)/Tactical Advanced Signal Processor (TASP).

B. Program Change Summary:

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
FY 1999 President's Budget:	2.370	1.599	1.114
Appropriated Value:	2.370	1.599	
Adjustments to FY 1998 Appropriated Value/ FY 1999 President's Budget:			
a. SBIR Realignment	-.057		
b. FY 1998 BTR UPDATE	-1.059		
c. C2 System Program Offset for IT-21			-0.127
d. Minor Pricing Adjustments	+.239	-.064	-0.017
FY 2000 PRES Budget Submit:	1.493	1.535	0.970

Funding: FY98 decrease for SBIR Realignment (-\$0.57), BTR Update 98-28 (-\$1.059 for Advanced Tactical Data Link System), minor pricing adjustments (+\$0.239). FY99 decrease for minor pricing adjustments (-\$0.064). FY00 decrease for C2 System Program Offset for IT-21 (-0.127), and minor pricing adjustments (-\$.017).

Schedule: Not applicable.

Technical: Not applicable.

C. Other Program Funding Summary

<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To Complete	Total Cost
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OPN P1 Line Item 103 (B.L. 298000/C2M7)

1.0	1.2	1.4	1.3	1.3	1.5	2.0	2.2	CONT.	CONT.
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- D. Acquisition Strategy: a) Complete joint program initiatives to implement a COTS signal processing solution for various user platforms. b) Assist current EMSP user programs to port their EMSP-based application software to COTS. c) Seek industry standard middleware products that isolate Navy application software products from future changes in COTS hardware.

E. Schedule Profile

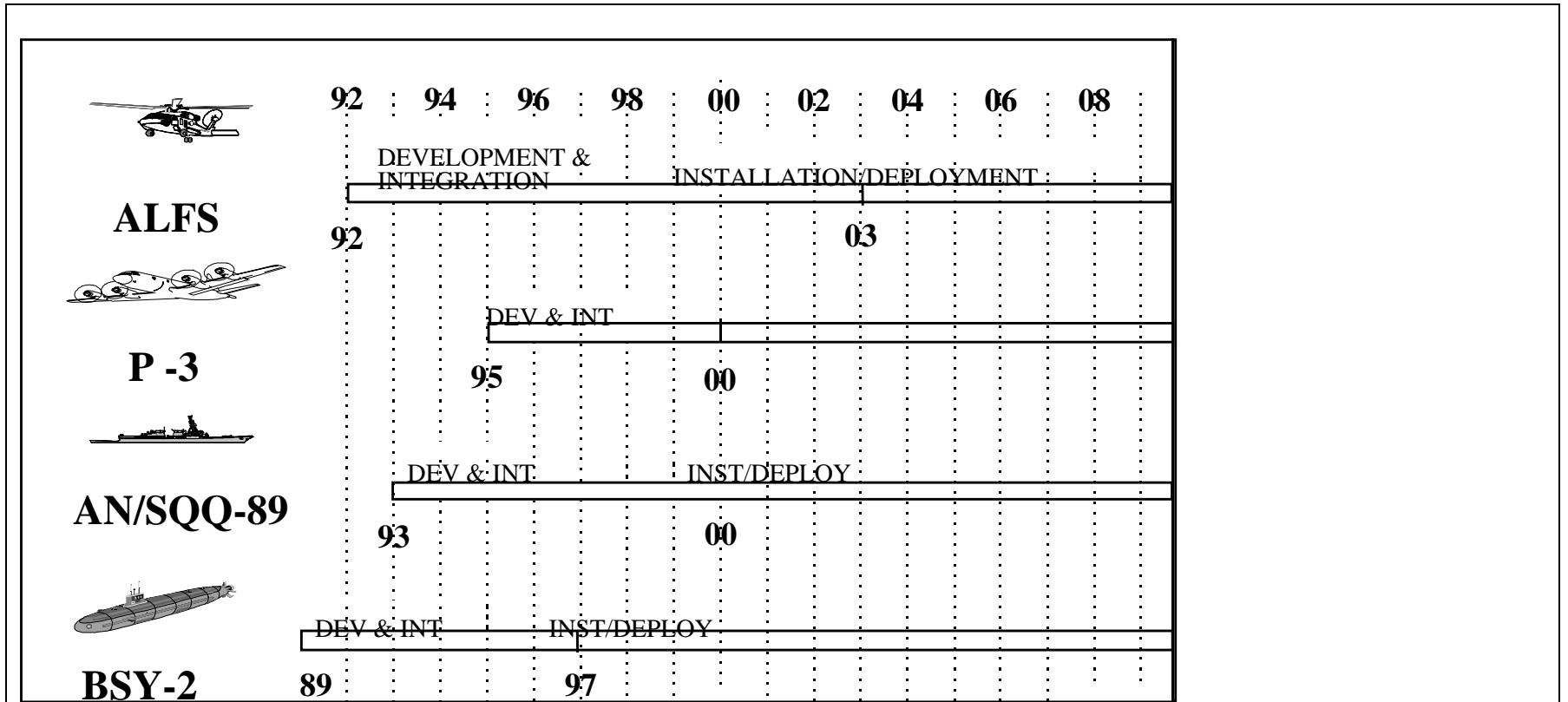
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Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/ 05	Enhanced Modular Signal Processor/ 0604507N	

Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Software Development	WR/RCP	Misc.	1.6	0.8	Var.	0.5	Var.		.	CONT.	CONT.	
Subtotal Product Development			1.6	0.8		0.5				CONT.	CONT.	
Remarks:												
Development Support Equipment												
Software Engineering Support	WR	NAWC, Pax River	2.2	0.4	10/98	0.3	10/99			CONT.	CONT.	
Miscellaneous Support/Travel	PD/Var.	Various		0.2	Var.	0.1	Var.		.	CONT.	CONT.	
Subtotal Support			2.2	0.6		0.4				CONT.	CONT.	
Remarks:												

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Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Subtotal T&E			0	0		0				0	0	
Remarks:												
Program Management Support	CPFF	TWD, VA	1.9	0.1	Var.	0.1	Var.			CONT.	CONT.	
Subtotal Management			1.9	0.1		0.1				CONT.	CONT.	
Remarks:												
Total Cost			5.7	1.5		1.0				CONT.	CONT.	
Remarks:												

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Exhibit R-3 Project Cost Analysis
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